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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,383	12/03/2001	Eric Graves	APLE.P0015	6999
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ART UNIT		PAPER NUMBER		
2623		12		DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/005,383	GRAVES ET AL.
	Examiner	Art Unit
	Anand Bhatnagar	2623

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -
Period for Reply.

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-21 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 12/03/01 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>11</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 21 is objected to because of the following informalities: Claim 21 is a duplicate claim of claim 20. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6, 8, and 18-21 are rejected under 35 U.S.C. 102(b) as being anticipated by (Adobe photoshop 5.0 user manual).

Regarding claims 1 and 6: Adobe photoshop discloses a method of performing color correction on at least one image, said image comprised of a plurality of pixels (page 117 left column under the section "Setting the highlights and shadows using the Level sliders"), said method comprising:

accepting a first vector input from a first color adjustment pad, said first vector input proportionally adjusting a color of pixels of a first selected luminance value in said image (page 117 right column step 3, wherein the pixel value with

the highest brightness of 233 is changed, this pixel of 233 is read as a white pixel and is read as the first vector of luminance); and

adjusting a color of pixels with other luminance values in a manner related to a difference between said first selected luminance value and said other luminance value (page 117 right column step 3 and page 118 left column bottom paragraph, wherein the other pixels are adjusted accordingly to the change in the white pixel value).

Regarding claims 2 and 18: The method of performing color correction on at least one image wherein said first selected luminance value is a white luminance value. It is rejected for the same reason as claim 1.

Regarding claims 3 and 19: The method of performing color correction on at least one image wherein said first selected luminance value is a black luminance value (page 119 left column bottom paragraphs and page 120 right column under the section "Using the Curves Command", wherein any point from 0 to 255 can be changed and the zero point is the black pixels and the 255 is the white pixels).

Regarding claims 4, 20, and 21: The method of performing color correction on at least one image as wherein said first selected luminance value is a middle luminance value (page 118 right column steps 4-6, where the midtones/gray pixels are changed/adjusted).

Regarding claim 8: The method wherein an equation specifies the luminance mapping relationship, and wherein modifying the luminance mapping relationship comprises modifying the equation.

It is rejected for the same reason as claims 1 and 6. When the brightest value is changed in the image and all other pixels' brightness levels are changed based on the change in the brightest pixel which is inherently performed by changing/adjusting the algorithm/equation to adjusted the other brightness values of the pixels.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

A.) Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over (Adobe photoshop 5.0 user manual) in view of Power et al. (U.S. patent 5,982,924)

Regarding claim 5: The method of performing color correction on at least one image wherein said manner related to a difference is performed using a Bezier curve.

Adobe photoshop discloses to modify parameters, such as color, brightness/luminance, hue, saturation, etc., of an image (adobe photoshop; page 109 left column). Adobe photoshop further teaches to change the values of all the other pixels accordingly based on the change made to a certain image parameter and can make changes using a curve and/or a color table (adobe photoshop; page 107 left column, page 117 right column bottom paragraph, page 118 whole page, page 120 right column). Adobe does not teach to use a Bezier Curve to make changes in an image (Power et al.; col. 11 lines 16-67). It would have been obvious to one skilled in the art to combine the teaching of Power et al. to that of Adobe photoshop because they are analogous in image color correction. One in the art would have been motivated to incorporate the teaching, of using a Bezier curve, of Power et al. to that of Adobe photoshop in order to maximize preservation of the selected predetermined attributes of the full color image (Power et al. col. 4 lines 50-52).

B.) Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over (Adobe photoshop 5.0 user manual) and Barton et al. (U.S. patent 6,266,103 B1).

Regarding claim 7: The method wherein a look up table specifies the luminance mapping relationship by identifying an output luminance value for each of a set of input luminance values, wherein modifying the luminance

mapping relationship comprises modifying a set of output luminance values in the look up table based on the user input.

Adobe photoshop discloses to modify parameters, such as color, brightness/luminance, hue, saturation, etc., of an image (adobe photoshop; page 109 left column). Adobe photoshop further teaches to change the values of all the other pixels accordingly based on the change made to a certain image parameter and can make changes using a curve and/or a color table (adobe photoshop; page 107 left column, page 117 right column bottom paragraph, page 118 whole page, page 120 right column). Adobe photoshop does not teach to use a luminance table to correct parameters in an image. Barton teaches to use a luminance table to make changes in an image (Barton; abstract, col. 4 lines 5-12, and col. 10 lines 28-39). It would have been obvious to one skilled in the art to combine the teaching of Barton et al. to that of adobe because they are analogous in image modification/smoothing. One in the art would have been motivated to incorporate the teaching of a luminance look up table of Barton et al. to that of the adobe photoshop in order to adjust the luminance because this is the most perceptible component of color to the naked eye.

C.) Claims 9 and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over (Adobe photoshop 5.0 user manual) and Sato et al. (U.S. patent 6,262,817 B1).

Regarding claim 9: A method of performing color correction by adjusting chrominance values of a set of pixels, the method comprising:

- a) receiving a user input for modifying chrominance values of pixels;
- b) based on the user input, modifying a chrominance mapping relationship for mapping chrominance values; and
- c) using the modified chrominance mapping relationship to map original chrominance values of pixels to adjusted chrominance values.

It is rejected for the same reasons as claim 1 and 6 above and for the following limitation of modifying chrominance values: Adobe photoshop discloses to modify parameters, such as color, brightness/luminance, hue, saturation, etc., of an image (adobe photoshop; page 109 left column). Adobe photoshop further teaches to change the values of all the other pixels accordingly based on the change made to a certain image parameter and can make changes using a curve and/or a color table (adobe photoshop; page 107 left column, page 117 right column bottom paragraph, page 118 whole page, page 120 right column). Adobe photoshop does not teach to change the chrominance values in an image. Sato et al. teaches to change the chrominance values of an image (Sato et al.; col. 17 lines 17-25 and col. 18 lines 50-67). It would have been obvious to one skilled in the art to combine the teaching of Sato et al. to that of adobe because they are analogous in image modification/correction. One in the art would have been motivated to incorporate the teaching of a changing the chrominance values of

Sato et al. to that of the adobe photoshop in order to have a system which adjust different parameters of different color spaces.

Regarding claim 11: The method of wherein an equation specifies the mapping relationship, and wherein modifying the mapping relationship comprises modifying the equation. It is rejected for the same reason as claim 8 above.

Regarding claim 12: The method of performing color correction on at least one image as claimed in claim 1 wherein said first color adjustment pad comprises a hue and saturation color wheel.

Regarding claim 13: The method of performing color correction on at least one image wherein said manner related to a difference is linearly proportional to said difference. It is rejected for the same reason as claim 1 above.

Regarding claims 14-17: Adobe photoshop discloses to modify parameters, such as color, brightness/luminance, hue, saturation, etc., of an image (adobe photoshop; page 109 left column). Adobe photoshop further teaches to modify the white, gray, and black values/pixels and modify the rest of the pixels in an image based on the changes made on these specific luminance pixels (Adobe photoshop; page 117 bottom paragraph in right column, page 118 whole page, and page 119 bottom paragraph left column). Adobe photoshop does not teach to make a first vector a white vector and a second vector a gray vector nor teaches a first vector to be a white vector, a second one to be a gray vector, and a third one to be a black vector. It is a matter of configuration of which order and combination of making corrections to the pixels.

D.) Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over (Adobe photoshop 5.0 user manual), as modified by Sato et al. (U.S. patent 6,262,817), and further in view of Barton et al. (U.S. patent 6,266,103 B1).

Regarding claim 10: The method wherein a look up table specifies the chrominance mapping relationship by identifying an output chrominance value for each of a set of input chrominance values, wherein modifying the chrominance mapping relationship comprises modifying a set of output chrominance values in the look up table based on the user input. It is rejected for the same reason as claim 7 above.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kasson (U.S. patent 5,774,112) for correcting the luminance of an image.

Leak (U.S. patent 5,670,986) for a color look up table.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anand Bhatnagar whose telephone number is (703) 306-5914, whose supervisor is Amelia Au whose number is 703-308-6604,

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(703) 306-5914, whose supervisor is Amelia Au whose number is 703-308-6604,
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AB

Anand Bhatnagar

Art Unit 2623

April 30, 2004.

SAMIR AHMED
PRIMARY EXAMINER